



U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 West 15th Street, Suite 3200
HELENA, MONTANA 59626

Ref: 8MO

September 26, 2012

Mr. Brian Hasselbach, P.E.
Right-of-Way and Environmental Programs Manager
Federal Highway Administration
585 Shepard Way
Helena, Montana 59601

and

Mr. Tom Martin, P.E.
Environmental Services Bureau Chief
Montana Dept. of Transportation
2701 Prospect Ave.
P.O. Box 201001
Helena, Montana 59620-1001

Re: CEQ 20120265: Billings Bypass Improvements,
Connecting Interstate 90 (I-90) east of Billings with Old
Highway 312, Possible USACE Section 10 and 404
Permits, Yellowstone County, MT

Dear Mr. Hasselbach and Mr. Martin:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Draft Environmental Impact Statement (DEIS) for the Billings Bypass Improvements Project. The EPA reviews EISs in accordance with its responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major Federal agency action. The EPA's comments include a rating of the environmental impact of the proposed action and the adequacy of the NEPA document.

The Federal Highway Administration (FHWA) and Montana Department of Transportation (MDT) have identified the Mary Street Option 2 Alternative as the preliminary preferred alternative for improving access and connectivity between Interstate-90 and Old Highway 12 to improve mobility in the eastern and northern area of Billings, Montana. The lead agencies consider the Mary Street Option 2 Alternative to best meet the purpose and need for the project and address the trade-offs associated with their analysis



of potential environmental, social and economic impacts. The DEIS states that the preliminary preferred alternative would be implemented in two phases with initial interim two-lane road improvements to meet traffic needs within a 20 year planning horizon, followed by eventual four-lane road improvements to meet longer term traffic needs as the Billings area continues to grow.

An environmental concern with the proposed project involves potential impacts to aquatic resources associated with construction of the proposed new bridge across the Yellowstone River. We are pleased that alternatives without a new Yellowstone River crossing were considered, although they were eliminated from further consideration due to their not providing adequate access, connectivity and travel time benefits, as well as substantial impacts to commercial properties. The preliminary preferred alternative (Mary Street Option 2 Alternative) and the Five Mile Road Alternative both include construction of a new 1,890 foot-long bridge over the Yellowstone River at a location north of the confluence of Five Mile Creek with the river; while the Mary Street Option 1 Alternative would involve construction of a 2,010 foot-long bridge across the main channel Yellowstone River south of the confluence of Five Mile Creek with the river (on a slightly skewed alignment), along with a 185 foot-long bridge constructed across a river side channel.

The Mary Street Option 2 Alternative would impact 4.52 acres of wetlands (4.36 acres jurisdictional wetlands) and 6.0 acres of riparian areas vs. 5.39 acres wetlands impact (4.07 acres jurisdictional) and 11.9 acres riparian impacts with the Mary Street Option 1 Alternative, and 4.7 acres of wetlands impacts (3.35 acres jurisdictional) and 5.1 acres of riparian impacts with the Five Mile Road Alternative. The Mary Street Option 2 Alternative also includes construction of a new 214 foot-long bridge over Five Mile Creek, while the other two build alternatives would involve reconstruction and widening of an existing bridge over Five Mile Creek.

It appears to us that both Five Mile Road Alternative and Mary Street Option 2 Alternative would have slightly less impacts to aquatic resources than the Mary Street Option 1 Alternative with their shorter Yellowstone River bridge crossing, and lesser impacts to wetlands and riparian areas. The Mary Street Option 2 Alternative appears to have the least overall impacts to wetlands, while the Five Mile Road Alternative appears to have the least impacts to jurisdictional wetlands and riparian acreage, although overall there do not appear to be large differences in impacts to aquatic resources among the build alternatives. While we have concerns regarding potential impacts to aquatic resources, we do not object to the FHWA's and MDT's identification of the Mary Street Option 2 Alternative as the preliminary preferred alternative.

In regard to air quality impacts the DEIS states that MDT's Standard Specifications 107.11.3, Air Quality, will be used to reduce construction related emissions. The EPA believes only relying on this particular statement is insufficient, since portions of the proposed project will be constructed directly adjacent to residential areas and construction may adversely affect air quality in residential areas. We recommend that consideration be given to monitoring PM10 levels during construction adjacent to residential areas to validate that construction emissions are effectively controlled. We also recommend that the air quality monitoring plan include elements identifying how monitoring will be performed, action levels for the monitored data, and how the data will be shared with the appropriate agencies and the public. A complete air quality monitoring plan would demonstrate how well the preferred alternative resolves potential concerns with dust emissions by measuring the effectiveness of the mitigation

measures in controlling or minimizing adverse effects. Our detailed comments (enclosed) also include recommendations for best management practices (BMPs) to reduce air quality impacts during construction, which we recommend be identified in the FEIS to promote improved public understanding of the potential for air quality effects during construction and how such effects may be reduced.

Our more detailed questions, comments, and concerns regarding the analysis, documentation, or potential environmental impacts of the Billings Bypass Improvements Project DEIS are included in the enclosure with this letter. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Billings Bypass Improvements DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). Our concerns revolve around potential adverse water and air quality effects that may occur during construction. A summary of EPA's DEIS rating criteria is attached.

We thank you for the opportunity to review and comment on this DEIS. If you have questions regarding our comments please feel free to call Mr. Steve Potts of my staff in Missoula at 406-329-3313 or in Helena at 406-457-5022, or via e-mail at potts.stephen@epa.gov.

Sincerely,



Julie A. DalSoglio
Director
EPA Montana Office

Enclosures

cc: Suzanne Bohan/Judy Roos, EPA, 8EPR-N, Denver
Robert Ray/Jeff Ryan, MDEQ, Helena

EPA Comments on the Billings Bypass Improvements Project Draft EIS

Brief Project Overview: The Montana Dept. of Transportation (MDT) and Federal Highway Administration (FHWA) prepared this DEIS to evaluate alternatives for a new principle arterial connecting Interstate-90 (I-90) east of Billings with (Old Highway 312) Old Hwy 312. The purpose of the project is to improve access and connectivity between I-90 and Old Hwy 12 and improve mobility in the eastern and northern area of Billings, Montana in Yellowstone County. Currently the Yellowstone River, the Billings rimrocks, and Montana Rail Link railroad tracks provide barriers to north-south transportation connectivity.

Alternatives evaluated included a No Action Alternative and three action alternatives. The No Build Alternative includes the routine maintenance and improvements of the existing roads in the study area and the currently programmed, committed, and funded roadway projects in the study area. Each of the three action alternatives would begin at the existing Johnson Lane interchange with I-90, and would include reconstruction of this interchange, and use similar alignments north and west toward the Yellowstone River, using portions of Johnson Lane and Coulson Road through commercial and industrialized areas. A grade separated bridge structure would cross over Coulson Road and the Montana Rail Link. North of the Yellowstone River three corridors were identified to complete the connection with Old Hwy 312.

The Mary Street Option 1 Alternative would cross the river south of Five Mile Creek and parallel the north side of Mary Street to its intersection with Main Street (Old Hwy 12), providing a 4.89 mile connection between I-90 and Old Hwy 312. This alternative would include construction of a 2,010 foot long bridge across the main channel Yellowstone River on a slightly skewed alignment, and a 185 foot long bridge across a side channel. North of the bridge, the alignment traverses agricultural land and Yellowstone River floodplain, and the alignment proceeds west toward the Mary Street corridor. The alignment would parallel the north side of Mary Street for approximately 1.6 miles traversing residential and agricultural land. Secondary corridor improvements include connection and improvements to the Five Mile Road corridor to Old Hwy 312, including reconstruction of Five Mile Road and replacement of the existing bridge over Five Mile Creek, and a new road segment would be built between Dover Road and Old Hwy 312.

The Mary Street Option 2 Alternative would be similar, but would cross the Yellowstone River north of Five Mile Creek, providing a 5.15 mile connection between I-90 and Old Hwy 312. This alternative would include construction of one 1,890 foot long bridge over the main channel of the Yellowstone River with no skew to the alignment. North of the river, the alignment proceeds northwest through undeveloped land planned as a regional park. The alignment intersects Five Mile Road and arcs to the southwest over Five Mile Creek toward the Mary Street corridor. A new 214 foot long bridge over Five Mile Creek would be constructed. The alignment would parallel the north side of Mary Street for approximately 1.6 miles traversing residential and agricultural land. The alignment would terminate at Old Hwy 312. Secondary improvements

along the Five Mile Road would be the same as for Option 1. The Mary Street Option 2 Alternative is identified as the preliminary preferred alternative.

The Five Mile Road Alternative would use the same bridge river crossing as the Mary Street Option 2 Alternative, but would follow the existing Five Mile Road alignment north of the river, providing a 4.4 mile connection between I-90 and Old Hwy 312. This alternative would pass through a tract of future park land as well as residential, commercial and agricultural areas. This alignment intersects Five Mile Road further north than the Mary Street Option 2 Alternative and would follow the existing Five Mile road north through agricultural areas. The alignment would terminate at Old Hwy 312, with two options for intersection locations. Secondary improvements would consist of reconstruction of Mary Street and its connection to Five Mile Road, and include replacement of the existing bridge over Five Mile Creek. A new road segment would extend north of Dover Road to connect with Old Hwy 312.

Comments:

1. We appreciate the inclusion of information on project background, history, and purpose and need, and clear descriptions of alternatives in the Executive Summary and Chapters 1 and 2 of the DEIS, along with the numerous tables, maps and figures describing alternatives and summarizing environmental impacts (e.g., Tables ES.1 through ES.3, Tables 2.1 -2.5, and Figures 2.1 -2-11, Appendix A maps and aerial photos). The narrative descriptions, tables, maps, and figures facilitate improved project understanding, help define issues, and assist in evaluation of alternatives providing a clearer basis of choice among options for the decisionmaker and the public in accordance with the goals of NEPA.

Alternatives

2. We are pleased that Table 2.5, “Alternatives Eliminated from Analysis” and the draft Clean Water Act Section 404(b)(1) Evaluation in Appendix F includes discussion of the transportation alternatives screening process and alternatives that would not require a new bridge over the Yellowstone River, and reasons for eliminating no-bridge alternatives during the Level 2 screening. It is important that evaluation of alternatives with potentially less damaging impacts on aquatic resources are evaluated to help assure that all practicable alternatives to avoid and minimize impacts to aquatic resources have been considered as required by the Clean Water Act 404(b)(1) Guidelines. The DEIS indicates that the alternatives without a new Yellowstone River crossing were eliminated because they did not provide adequate access, connectivity and travel time benefits, as well as potentially causing substantial impacts to commercial properties.
3. The DEIS states that, “the Mary Street Option 2 Alternative would require a new crossing of Five Mile Creek, while the other build alternatives would expand and replace an existing crossing” (page 2-28). We note, however, that the Chapter 2 figures depicting the build alternatives all include the same statement that “a new bridge structure across Five Mile Creek” is included in each build alternative (Figures 2.2 through 2.4). These figures do not clarify that the Mary Street Option 2 Alternative would involve building a wholly new bridge

over Five Mile Creek, while the other build alternatives (Mary Street Option1 and Five Mile Road Alternative) involve replacing an existing bridge. For improved clarity and public understanding of the build alternatives we suggest that the differences in alternatives in regard to the Five Mile Creek crossing be identified in Figures 2.2 through 2.4.

Water Resources

4. We appreciate the identification and discussion of the waterbodies in the project area, including the disclosure that the Yellowstone River is listed on Montana's Section 303(d) Clean Water Act list of water quality impaired waters (pages 3-109, 3-110). We note that additional information on Clean Water Act 303(d) listings to further enhance public understanding may be found at, <http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/overview.cfm>.

As indicated in the DEIS the Yellowstone River does not support aquatic life, warm water fishery, drinking water and primary contact recreation uses due to natural pollution sources, arsenic, agriculture and municipal pollution sources. The DEIS indicates that water quality impacts would occur during construction, but be limited and managed with application of BMPs, a Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention and Pollution Plan (SPPP) (pages 4-212 to 4-218). For clarity we note that the SPPP identified on page 4-216 may have been intended to be a Spill Prevention, Control, and Countermeasure (SPCC) Plan. If so, we suggest that this be corrected in the FEIS. We appreciate the discussion of water quality protection measures on pages 2-216 to 4-218.

5. It will be important that the proposed Billings Bypass project be consistent with the Montana Dept. of Environmental Quality's (MDEQ) development of a Total Maximum Daily Load (TMDL) for the water quality impaired Yellowstone River. We are pleased that the DEIS states that the MDT has procedures in place to coordinate with the MDEQ regarding water quality and TMDLs (page 4-216). MDEQ TMDL Program staff who may be contacted to help assure project consistency with the Yellowstone River TMDL include Mr. Robert Ray at 406-444-5319 and/or Mr. Dean Yashan at 406-444-5317.
6. We appreciate the DEIS discussion of project area wetlands (pages 3-116 to 3-126), and wetland impacts (pages 4-229 to 4-238), particularly Table 4.42, quantifying wetland impacts for each alternative. The DEIS indicates that there are 26 delineated wetlands comprising 37.43 acres are present in the project area (Table 3.24). It states that the Mary Street Option 2 Alternative may have fewer total water resources impacts than the other build options (page 2-28), although in the Draft 404(b)(1) Analysis in Appendix F (page 30) it states that currently the Five Mile Creek Alternative may have fewer impacts to aquatic resources.

It is not clear if the identified wetland impacts in the DEIS include impacts from all activities, including those that may occur outside the highway right-of-way such as from gravel mining or excavation of borrow material, stockpiling of materials in staging areas, and disposal of waste materials. The FEIS should clarify that the impacts to wetlands include

impacts from all activities, including activities outside the highway right-of-way, such as excavation of borrow material and stockpiling of materials during construction, and disposal of fill materials. We also note that unquantified indirect impacts to wetlands would likely occur from expedited development of undeveloped areas over time with increased road access from all build alternatives (Table 4.43, page 4-233).

Heavily disturbed wetlands are not listed or acknowledged as evaluated in the DEIS. In an area of heavy development and disturbance the MDT may want to use other tools such as topography to determine if there are wetlands and riparian areas with non-hydrophytic vegetation. MDT may want to consult with references such as the wetland delineation manuals and the Corps of Engineers RGL 90-7 for disturbed sites. Are mudflats and islands being considered waters of the U.S. by grouping them in the riverine system? Unvegetated special aquatic sites (e.g. mudflats lacking macrophytic vegetation) within and adjacent to the Yellowstone and Five-Mile Creek that may be affected should be discussed. If you have questions please call Ms. Toney Ott with EPA in Denver at 303-312-6909.

We note that in addition to the original 2007 Rapanos information regarding wetland delineation, the MDT should use the December 2008 Rapanos guidance document and may need to consider the current draft EPA wetland jurisdictional guidance, if the 404 permit application is submitted to the Corps of Engineers. We suggest that information on jurisdictional status be sent to the Corps and EPA. The Corps is requested to send complex jurisdictional information to EPA before official submittals and work with EPA.

http://water.epa.gov/lawsregs/guidance/wetlands/upload/2008_12_3_wetlands_CWA_Jurisdiction_Following_Rapanos120208.pdf.

We also note that it will be necessary for the MDT to oversee the construction contractor(s) to assure that wetland impacts are minimized, and that environmentally sensitive areas are avoided when obtaining borrow or material sources and selecting construction staging areas and fill or waste disposal areas. It would be helpful if the procedures used by MDT to oversee contractor identification and use of material source sites and excavation/fill operations to assure that adverse impacts from such sites and operations are avoided are described in the FEIS.

7. The DEIS indicates that the Mary Street Option 2 Alternative would impact 6.0 acres of riparian area, include a shorter Yellowstone River bridge crossing than the Mary Street 1 Option, and would impact 4.52 acres of wetlands vs. 11.9 acres and 5.1 acres of riparian impacts, and 5.39 acres and 4.7 acres of wetlands impacts with the Mary Street Option 1 and Five Mile Option, respectively. Although the Five Mile Road Alternative would only impact 3.35 acres of jurisdictional wetlands, whereas Mary Street Option 1 would impact 4.07 acres and Mary Street Option 2 would impact 4.36 acres of jurisdictional wetlands, respectively.

In addition to wetland impacts, highway crossings of rivers and streams would result in impacts to aquatic resources. The Street Option 2 Alternative and Five Mile Road Alternative include a 1,890 foot-long bridge over the Yellowstone River, whereas the Mary Street 1

Option includes a 2,010 foot-long bridge over the Yellowstone River and a 185 foot-long bridge over a side channel. In addition the Mary Street 2 Option includes construction of a new 214 foot-long bridge over Five Mile Creek, whereas the Mary Street Option 1 and Five Mile Road Alternative would replace and widen an existing bridge over Five Mile Creek.

It appears to us that the Mary Street Option 2 Alternative and Five Mile Creek Alternative would both have slightly less impacts to river and stream resources than the Mary Street Option 1 Alternative due to a shorter Yellowstone River bridge crossing and reduced impacts to wetlands and riparian areas. The draft 404(b)(1) analysis in Appendix F indicates that the Five Mile Road Alternative may have the least overall aquatic impacts at this stage, although it appears to us that total wetland impacts may be slightly less with the Mary Street Option 2 Alternative. The Mary Street Option 2 Alternative has the least overall impacts to wetlands, while the Five Mile Road Alternative has the least impacts to jurisdictional wetlands and to riparian acreage. Overall there do not appear to be large differences in impacts to aquatic resources among the build alternatives. While we have concerns regarding potential impacts to aquatic resources, we do not object to the FHWA's and MDT's identification of the Mary Street Option 2 Alternative as the preliminary preferred alternative.

8. We appreciate the commitment to mitigate impacts to wetlands from use of credits from one of MDT's wetland mitigation reserves, purchasing credits from a wetland mitigation bank, or developing additional on-site wetland restoration, enhancement, or creation (page 4-237), and the identification and discussion of measures to avoid and minimize wetland impacts in the DEIS including in the draft Clean Water Act Section 404(b)(1) Evaluation in Appendix F. Although it would be helpful if more detailed and specific information on the specific wetland mitigation option to be used for the project were identified in the FEIS.
9. Table 4.38, "Water Quality Related Features" (page 4-213) and Table 4.41 (page 4-225) indicates that there may be up to 8 piers in the water for the proposed 2,010 foot long bridge over the Yellowstone River with the Mary Street Option 1 Alternative, but up to 9 piers in the water for the 1,890 foot long bridge proposed with Mary Street Option 2 and the Five Mile Road Alternative. It seems counterintuitive to us that the shorter Mary Street Option 2 bridge, constructed with no skew across the river (Appendix F), would have more piers in the water than the longer Mary Street Option 1 bridge constructed with a slight skew across the river and a side channel. We recommend that the FEIS explain why the longer Mary Street Option 1 bridge would have less piers in the river than the shorter Mary Street Option 2 and Five Mile Road Alternative bridge.

We support bridge designs with a minimal number of pier within the river channel as possible in order to minimize encroachment within the stream channel, riparian area and floodway. We also support provision of an adequate bridge width and capacity to pass river flood flows and bedload. Bridge designs should avoid impeding flood flows that could cause sediment deposition above stream crossings and erosion and scouring below crossings and causing substantial increases in flood elevations (e.g., construction of bridges on pilings, as opposed to fill, can reduce encroachment).

We also note that bridges with wide spans afford opportunities for improved wildlife passage, and promote reduced wildlife-vehicle collisions. We encourage use of bridge spans with the widest possible span and minimal number of piers in water to reduce encroachment on river channels and floodways, reduced impedance to flood flows, and to promote improved wildlife passage beneath bridges.

We are pleased that it is stated that bridge design criteria will avoid exceeding a 0.5 feet increase in base flood elevation (page 4-224). We also appreciate the visual depiction of the proposed bridge for the preliminary preferred alternative (page 4-147).

10. Table 4.38 (page 4-213) indicates in the middle column that there may be up to 2 piers in the water with the Five Mile Creek bridge, but the right hand column says this bridge can be designed to span the floodway. These statements seem inconsistent, since if the bridge can be designed to span the floodway it is not clear why there should be any piers in the water. We recommend that this discrepancy be explained in the FEIS.
11. Drainage culverts for the proposed road improvements are discussed on pages 4-222. We recommend that culverts be adequately sized to pass flood flows and bedload, and that major drainage culverts simulate the natural stream grade and stream bed substrate as much as possible (e.g., open bottom arch culverts that provide a natural streambed). Are open bottom arch culverts included with the proposed project for the major drainage culverts?
12. We are pleased that bridge runoff will be carried off the bridge for treatment to the maximum extent practicable (page 4-213). Although we did not see much specific information in the DEIS regarding proposed treatment of stormwater runoff from bridges and roads. We recommend that information on treatment of road and bridge runoff be included in the FEIS. We support use of vegetative filters and sediment traps to capture sediment before it can enter streams and wetlands, and also encourage consideration of infiltration basins or dry wells as another potentially effective way to remove contaminants from stormwater runoff. We note that infiltration basins or dry wells should be inspected and maintained on a regular schedule. Also, sometimes groundwater monitoring may be needed to assure that pollutant levels do not increase in ground water, particularly if there are significant amounts of contaminated highway runoff directed to infiltration beds or dry wells upgradient from public water supply wells.
13. We are pleased that it is stated that no public wells appear to be in conflict with any of the proposed project corridors (page 4-218), and that groundwater monitoring wells in the project are identified and discussed (Figure 3-36, pages 3-110, 3-111), along with potential groundwater effects (pages 4-218, 4-219).

While the DEIS indicates that no indirect, temporary construction or cumulative impacts to groundwater are anticipated, we ask if infiltration basins or dry wells are used to treat road stormwater runoff will groundwater monitoring be able to identify road runoff impacts to groundwater quality?

14. Thank you for identifying permits and authorizations that would be obtained to implement the proposed project including several water quality permits and authorizations (e.g., Montana Pollutant Discharge Elimination System (MPDES) Stormwater permits, Corps of Engineers 404 permit, Section 318 short term turbidity exceedance authorization, 310 or 124 permits, etc., page 5-1).
15. Roadway construction, operation, and maintenance can impact streams, wetlands and riparian areas from runoff, disruption of drainage patterns, stockpiling of materials in staging areas, maintenance of construction and maintenance equipment, application of herbicides, mowing, and snow plowing and sanding of roads or use of salt and deicers. The impacts of maintenance activities are more a matter of a long-term indirect and cumulative effects than any one incident.

We encourage the highway agencies to train road maintenance staff regarding procedures that minimize adverse impacts of road maintenance activities on streams and wetlands. (contact, Montana Local/Tribal Technical Assistance Program at Montana State University, Steven J. Jenkins, P.E, at 406-994-6100 or 1-800-541-6671). Snow plowing subsequent to sanding moves sand off the roadbed to the adjacent ditch line and fill slopes, filling depressions and ditches and widening shoulders, which can have adverse effects upon streams, wetlands, and riparian areas. These activities have the potential to introduce sediment, materials and chemicals into streams. We also encourage use of BMPs for winter maintenance operations such as using mechanical brooms to pick up sand after thaws.

16. On page 4-216 it is stated that cumulative impacts to water quality are not expected to be minor (bottom of first paragraph). We believe this statement may be a typographical error, since elsewhere it is stated that water resource impacts are anticipated to be minor. This error should be corrected in the FEIS.

Wildlife and Aquatic Species

17. Thank you for assessing and discussing potential project impacts on wildlife and aquatic species and their habitat (pages 4-241 to 4-253), particularly identifying recommended conservation measures for wildlife and aquatic species (pages 4-245, 4-246).
18. We saw no mention of pallid sturgeon or other threatened or endangered fish or State sensitive fish species in the Yellowstone River. Are there any T&E or candidate listed fish species or State sensitive fish species in the Yellowstone River or Five Mile Creek that may be impacted by the proposed project?

Air Quality

19. We appreciate the air quality information in Chapter 3 (pages 3-98 to 3-101) and air quality analysis in Chapter 4 of the DEIS (pages 4-189 to 4-201). The DEIS indicates that the project

study area is currently a maintenance area for carbon monoxide (CO), and is in compliance with PM2.5 and PM10 NAAQS standards, and is a non-attainment area for sulfur dioxide, although sulfur dioxide is not a criteria pollutant for transportation conformity (page 3-99). It further states (page 3-99, section 3.4.1.2 under "Criteria Pollutants", last sentence in the second paragraph in this section), "Tracking for CO for the Billings area consists of monitoring and analyzing CO concentrations by the MDEQ to demonstrate ongoing compliance with the CO NAAQS." We note that this statement is no longer true as MDEQ has shut down the CO monitor in Billings. For reference, please see the MDEQ Air Quality 2012 Monitoring Network Plan (<http://deq.mt.gov/airmonitoring/nwHome.mcp>), page 11, last sentence of the first paragraph which states: "CO monitoring has been suspended in all three communities as a result."

20. The DEIS indicates that the CAL3QHC computer dispersion model was used to predict the 1-hour CO concentrations, with an adjustment factor for 8-hour concentrations, at the receptor locations for year 2010 and 2035 (page 4-191, section 4.4.1.2.2 entitled "Direct Impacts – Air Quality: All Build Alternatives", section entitled "Carbon Monoxide Analysis"). This section does not, however, indicate which mobile source emissions factor model was used to generate the mobile source emissions data used in the CAL3QHC modeling. We note that EPA's MOVES2010 model was officially released on March 2, 2010 and MOVES2010a was released on September 8, 2010 with the most recent update to the MOVES model, MOVES2010b, being released on April 23, 2012. Although not identified in section 4.4.1.2.2, EPA is curious if our MOVES2010b model was used (and on the "Project" scale) to prepare the CO emissions for the intersection modeling? If so, this should be noted in this section and if not, the emission factor model that was used should be identified (MOBILE6.2?).
21. The discussion regarding Mobile Source Air Toxics (MSAT) in the first full paragraph on page 4-199 references the FHWA 2009 document. The last two sentences of this paragraph state that emission estimates from various mobile source emissions models (MOBILE6.2, EMFAC2007, and the DRAFT2009 MOVES model) were compared and that the MSAT results are indicated as being highly inconsistent. We believe the public would benefit from an update to this discussion regarding the development of EPA's MOVES2010 model, its improved accuracy, and enhanced ability to estimate both criteria and MSAT emissions. EPA's current version of the MOVES model, MOVES2010b, was released on April 23, 2012 and not only calculates the six priority MSATs noted in this section, but includes 63 other MSATs. Please review the MOVES2010b "Q" and "A" document found at the following weblink: <http://www.epa.gov/otaq/models/moves/documents/420f12014.pdf> .
22. The DEIS states that MDT's Standard Specifications 107.11.3, Air Quality, will be used to reduce construction related emissions (page 4-201); however, from what EPA could find, this Standard Specification only states the following:

"107.11.3 Air Quality: Operate all equipment including, but not limited to, hot-mix paving plants and aggregate crushers to meet the minimum air quality standards established by federal, state, and local agencies. No additional payment will be made for

the use or installation of dust or smoke control devices, for the disruption of work or loss of time occasioned by the installation of such control devices, or for any other related reasons.” (See: “Standard Specifications for Road and Bridge Construction, 2006 Edition” at:

http://www.mdt.mt.gov/other/contract/external/standard_specbook/2006/2006_stand_specs.pdf)

As portions of the project will be constructed directly adjacent to residential areas, the EPA believes only relying on this particular statement as insufficient. We recommend that during construction adjacent to the residential areas that consideration for monitoring for PM₁₀ levels during construction take place to validate that construction emissions are effectively controlled. The EPA recommends that an air quality monitoring plan include elements identifying how monitoring will be performed, action levels for the monitored data, and how the data will be shared with the appropriate agencies and the public. A complete monitoring plan would demonstrate how well the preferred alternative resolves potential dust emissions concerns by measuring the effectiveness of the mitigation measures in controlling or minimizing adverse effects. In regard to best management practices (BMPs) to mitigate construction related emissions, EPA recommends consideration of the following mitigation measures to reduce air quality impacts during construction, and suggests that such measures be identified in the FEIS to improve public understanding:

- Requiring heavy construction equipment to use the cleanest available engines or to be retrofitted with diesel particulate control.
- Requiring diesel retrofit of construction vehicle engines and equipment as appropriate.
- Using alternatives for diesel engines and/or diesel fuels such as: biodiesel, LNG or CNG, fuel cells, and electric engines.
- Installing engine pre-heater devices to eliminate unnecessary idling during winter time construction.
- Prohibiting the tampering of equipment to increase horsepower or to defeat emission control device's effectiveness.
- Requiring construction vehicle engines to be properly tuned and maintained.
- Using construction vehicles and equipment with the minimum practical engine size for the intended job.
- Using water or wetting agent to control dust.
- Using wind barriers and wind screens to prevent spreading of dust from the site.

- Having a wheel wash station and/or crushed stone apron at egress/ingress areas to prevent dirt being tracked onto public streets.
- Using vacuum-powered street sweepers to remove dirt tracked onto streets.
- Covering, as appropriate, all dump/haul trucks leaving sites.
- Covering or wetting temporary excavated materials.
- Using a binding agent for long-term excavated materials.
- Locating diesel engines as far away as possible from residential areas.
- Locating staging areas as far away as possible from residential uses.
- Scheduling work outside of normal hours for sensitive receptors; this should be necessary only in extreme circumstances, such as construction immediately adjacent to a health care facility, church, outdoor playground, or school.

If the lead agencies have questions regarding EPA's review of the DEIS air quality analysis we encourage you to call Mr. Timothy Russ, who may be reached in our EPA Denver Regional Office at 303-312-6479.

Indirect Effects

23. New road construction that improves traffic flow, reduces congestion and increases access can contribute to induced residential, commercial, industrial growth, and changed land uses constitutes indirect effects. Indirect effects are defined as "...caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems" (40 CFR 1508.9(b)). Induced residential, commercial, and industrial growth and land use change affect air quality, water quality, wetlands, wildlife habitat loss and fragmentation, urban sprawl, loss of rural character, farm land and other natural resources.

The EPA is concerned about the loss of farmland due to expedited residential development associated with increased road access through agricultural areas. The DEIS states that the north and east portions of the study area are predominately agricultural (page 3-23) and the proposed project would encourage conversion and expedite development of agricultural land to residential uses (pages 4-47, 4-48). The DEIS indicates that the proposed project would result in direct impacts to 28 acres of farmland (15 acres of farmland of statewide importance and 13 acres of prime farmland, Table 2.27, page 4-171). We also note that Table 2.28,

“Indirect Impacts to Farmland” (page 4-171) and subsequent narrative discussion mentions that construction of a roadway through parcels used for farming could indirectly affect the viability of some parcels for agricultural use.

24. Table 4.8 (page 4-43) indicates that the preliminary preferred alternative and the Mary Street Option 1 Alternative are not compatible with plans for a future park development to be located along the Yellowstone River east of Five Mile Road. However, Figure 4-10 (page 4-51) and Table 4-9 (page 4-53) indicate that all build alternatives would cross the southern portion of the future planned John H. Dover Memorial Park, and Figure 4-10 seems to show that the Mary Street Option 1 Alternative rather than the Five Mile Road Alternative may have the least impact on the future park. The FEIS should include additional discussion to explain why the Five Mile Road Alternative is stated to be compatible with future park development, while the Mary Street Option 1 Alternative is not compatible with future park development.

Also if the Five Mile Road Alternative is compatible with all existing local plans, land uses and zoning, and the other build alternatives are not compatible, we suggest that this potential advantage of the Five Mile Road Alternative be more clearly disclosed in the discussion of trade-offs associated with the identification of a preliminary preferred alternative in Chapter 2 (pages 2-27 to 2-29).

25. The EPA is a Smart Growth Network partner, and we encourage the lead agencies to fully consider smart growth options as it conducts additional deliberations on transportation improvements for this project (see <http://www.epa.gov/smartgrowth/> and http://www.epa.gov/smartgrowth/sg_network.htm). There may be opportunities to reduce indirect effects on sensitive environmental resources.

Climate Change

26. We appreciate the DEIS discussion of greenhouse gases and climate change (pages 3-101, 3-102, page 4-200), although greenhouse gas emissions were not evaluated for the proposed project. We are pleased that the DEIS states that the FHWA has strategies to reduce greenhouse gas emissions from transportation including reduction in vehicle miles traveled (by implementing land use and transit strategies that concentrate development and offer alternative transportation options), promoting technology for improved fuel economy, and use of fuels with lower greenhouse gas emissions (i.e., lower life-cycle carbon content). It would be of interest to know to what extent, if any, these strategies are being considered or applied in the Billings area in association with this project.

Environmental Justice

27. We appreciate the evaluation of direct impacts, indirect impacts, temporary construction impacts, and cumulative impacts of the project alternatives on environmental justice (EJ) populations, as well as discussion of mitigation measures for environmental justice (pages 4-74 to 4-81). While tract level data is more accessible through the US Census, blockgroup

data is actually available, but MDT and FHWA would need to spend more time seeking out this information. We are not sure, however, that use of blockgroup data would result in any change in the overall conclusion of no disproportionate impacts to environmental justice populations. We are pleased that the DEIS reports that no disproportionately high and adverse effects to EJ populations are anticipated from implementation of the preliminary preferred alternative.

Other

28. We fully support the planned improvements to bicycle and pedestrian facilities (pages 3-19, 3-20, 4-39 to 4-42), and are pleased that the proposed project would have an overall positive impact on bicycle and pedestrian travel (page 4-42).
29. The Vehicle Miles Traveled (VMT) amount of 434,000 miles per day in the study area in 2010 shown on page 3-98 does not appear to be consistent with the no build VMT amounts shown in Table 4.1 (e.g., 666,800 miles per day for no action, page 4-8). It would be helpful if the differences between these VMT amounts were explained.

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

Definitions and Follow-Up Action*

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

